

REMARKS

Introduction

Claims 1, 19 and 47 have been amended. The application continues to include claims 1-13, 15-27, 29, 30 and 47. Reconsideration of the rejection of the application is respectfully requested in view of the above amendments and following remarks.

The Claims are Allowable because the Prior Art Fails to Disclose the Automatic Generation of Security Types and Interceptors for a Web Service

Claims 1-13, 15-27, 29, 30 and 47 are rejected under 35 U.S.C. §103(a) as being unpatentable over Bau, III et al., U.S. Patent Publication No. 2003/0005181 ("Bau"), in view of Beged-Dov et al, U.S. Patent Publication No. 2002/0174241 ("Beged-Dov"). Reconsideration of these rejections is respectfully requested because the prior art fails to disclose the automatic generation of role based security types and header interceptors for a web service.

One embodiment of the invention is a software development environment system for assisting a software developer in developing components for Web services or "network accessible services". The system includes a compiler that compiles augmented source code. The compiler then generates one or more object files, software components and deployment descriptors to facilitate the automated deployment of Web services. See e.g., ¶ 27 of the present published application (pub. no. 2005/00211689). The augmented source code may include code to automatically create different types of security that can be applied to, for example, request messages,

callbacks or response messages, or requests and callbacks originating with intermediate services in a chain. *See e.g., id. at ¶ 79.* A list of role names may be included in the annotation so that role-based security can be automatically generated during compilation. *See e.g., id. at ¶¶ 93-116.* Further, the augmented source code may include code to automatically develop message interception and transformation capabilities for Web services. The interceptors allow developers to apply their own pre and post processing methods to Web service messages, including the transformation of message headers and content. *See e.g., id. at ¶ 203.*

Bau discloses an annotation base development platform for asynchronous Web services. Code for enhanced Web services are created with an enhanced compiler and annotated source code. For example, code may be automatically generated to manage state associated with multiple, simultaneous conversations, or for managing one or more asynchronous transactions. *See e.g., Bau at ¶ 30.* However, Bau fails to disclose automatically generating security types or interceptors for web services.

Beged-Dov discloses an Internet clipboard service that allows data to be transmitted from a source web service 124 to a destination web service 122 via a client computer 104. *See e.g., Beged-Dov at ¶ 18; Fig. 1.* Beged-Dov discloses "security" in that it discloses that an end user must log in to the clipboard application and be authenticated. *See Beged-Dov at ¶ 19.* However, Beged-Dov fails to disclose automatically generating such security during compilation to generate the web service, and fails to disclose role-based security in the context of web services. Beged-Dov further discloses intercepting messages between a web service and the client computer.

See Beged-Dov at ¶ 19. However, Beged-Dov fails to disclose automatically generating an interceptor during software development that transforms message headers.

In addition, under *KSR v. Teleflex*, 550 U.S. 398 (2007), one of ordinary skill would not look to combine Bau and Beged-Dov to arrive at the claimed invention without the benefit of hindsight. Bau is directed to a software development environment and a development tool that is used for compiling software code to generate an application. In contrast, Beged-Dov is directed to a software application itself and features of that application. One of ordinary skill would have no reason to look to Beged-Dov, which is not related to software development tools, in order to modify/improve the software development tool disclosed in Bau.

In contrast to the cited prior art, amended independent claims 1 and 19 recite annotated source code that, when compiled, automatically creates a security type that comprises “role based security that is limited to the one or more role.” Further, amended independent claim 47 recites annotated source code that, when compiled, automatically creates an interceptor that “is configured to transform message headers and contents between the client and the deployed service component”. For at least these reasons, amended claims 1, 19 and 47 should now be allowable over the cited prior art. The remaining claims depend from one of the above independent claims and should also be allowable for at least the above reasons.

Conclusion

Applicants respectfully request favorable action in connection with this application.

The Examiner is invited and urged to contact the undersigned to discuss any matter concerning this application.

No fee should be required for this submission. However, should any fee be required, the Commissioner is authorized to charge any such fee to Counsel's Deposit Account 50-2222.

Respectfully submitted,

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